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Losses of Pigs in Transit

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The losses of pigs in transit to a slaughterhouse are very small, but do show a marked seasonal variation.

The ratio of losses in the four seasons are as follows (four year averages).

Winter, 1; Spring, 1.45; Summer, 2.63; Autumn, 1.58.

High correlations are found with respect to the following weather parameters.

1. Mean monthly temperature in daylight hours
2. Mean monthly day maximum temperature
3. Mean monthly daily radiation
4. Mean monthly diurnal range

The relationships during the months of rising temperatures, January-July, seem slightly different to those during the remaining months of the year.

Total Correlation Coefficients		Jan-July	Aug-December
Losses with	1.	0.95	0.96
	2.	0.95	0.97
	3.	0.83	0.95
	4.	0.83	0.96

It would be logical to assume that Factor No 1 would be the most helpful (all factors are highly inter-correlated).

If ambient temperature is the critical factor, an estimate can be made of the effect of night transport using mean monthly temperatures during night hours. The results, in terms of percentage of losses which might be avoided are:-

Jan	11%	Apr	34%	July	17%	Oct	15%
Feb	21%	May	29%	Aug	14%	Nov	16%
Mar	25%	June	19%	Sept	19%	Dec	14%

or about 17% overall during the whole year.

If change of temperature, housing to transport, is significant the potential gain from night transport would be greater, but this seems unlikely.

It is possible that incident sunshine on the transporter may be important but this effect cannot be traced with present available data.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell

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